

Complete Listing of the Claims

Claims 1-25 (cancelled)

Claim 26 (previously presented): A method of producing an Avian Myeloblastosis Virus (AMV) reverse transcriptase having an RNA dependent DNA polymerase specific activity of at least about 30,000 units per milligram, said method comprising

(a) obtaining a eukaryotic host cell comprising one or more nucleic acid sequences encoding an AMV reverse transcriptase α subunit and one or more nucleic acid sequences encoding an AMV reverse transcriptase β subunit; and

(b) culturing said host cell under conditions sufficient to produce said AMV reverse transcriptase; and

(c) isolating or purifying said reverse transcriptase thereby obtaining an AMV reverse transcriptase having an RNA-dependent DNA polymerase specific activity of at least about 30,000 units per milligram.

Claims 27-32 (cancelled)

Claim 33 (previously presented): The method of claim 26, wherein subunits of said AMV reverse transcriptase are expressed in said host cell to form said AMV reverse transcriptase.

Claims 34-116 (cancelled)

Claim 117 (previously presented): The method of claim 26, wherein said nucleic acid sequences are contained in one or more vectors.

Claims 118-121 (cancelled)

Claim 122 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase comprises two β subunits.

Claim 123 (previously presented): The method of claim 26, wherein said AMV reverse transcriptase comprises an α and a β subunit.

Claim 124 (previously presented): The method of claim 117, wherein said nucleic acid sequences are contained on the same vector.

Claim 125 (previously presented): The method of claim 117, wherein said nucleic acid sequences are contained on different vectors.

Claim 126-136 (cancelled)

Claim 137 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity from about 80,000 units per milligram to about 150,000 units per milligram.

Claim 138 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 35,000 units per milligram.

Claim 139 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 40,000 units per milligram.

Claim 140 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 45,000 units per milligram.

Claim 141 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 50,000 units per milligram.

Claim 142 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 55,000 units per milligram.

Claim 143 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 60,000 units per milligram.

Claim 144 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 65,000 units per milligram.

Claim 145 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 70,000 units per milligram.

Claim 146 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 75,000 units per milligram.

Claim 147 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of at least about 80,000 units per milligram.

Claim 148 (cancelled)

Claim 149 (previously presented): The method of claim 26, wherein said host cell is a cultured insect cell.

Claim 150 (previously presented): The method of claim 26, wherein said host cell is an insect larva cell.

Claim 151 (previously presented): The method of claim 26, wherein said host cell is a yeast cell.

Claim 152 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 35,000 units per milligram.

Claim 153 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 40,000 units per milligram.

Claim 154 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 45,000 units per milligram.

Claim 155 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 50,000 units per milligram.

Claim 156 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 55,000 units per milligram.

Claim 157 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 60,000 units per milligram.

Claim 158 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 65,000 units per milligram.

Claim 159 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 70,000 units per milligram.

Claim 160 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 75,000 units per milligram.

Claim 161 (currently amended): The method of claim 26, wherein said AMV reverse transcriptase has [a] an RNA-dependent DNA polymerase specific activity of about 80,000 units per milligram.